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ABSTRACT

Data on institutionalized mentally handicapped persons is contained in tables describing recent trends of patient movement and administrative data in public institutions (1963-69), patient movement ratios, and personnel and financial data. Figures are listed by individual state in each category. (KW)

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RESIDENTS In Public Institutions for the MENTALLY RETARDED

CURRENT FACILITY REPORTS

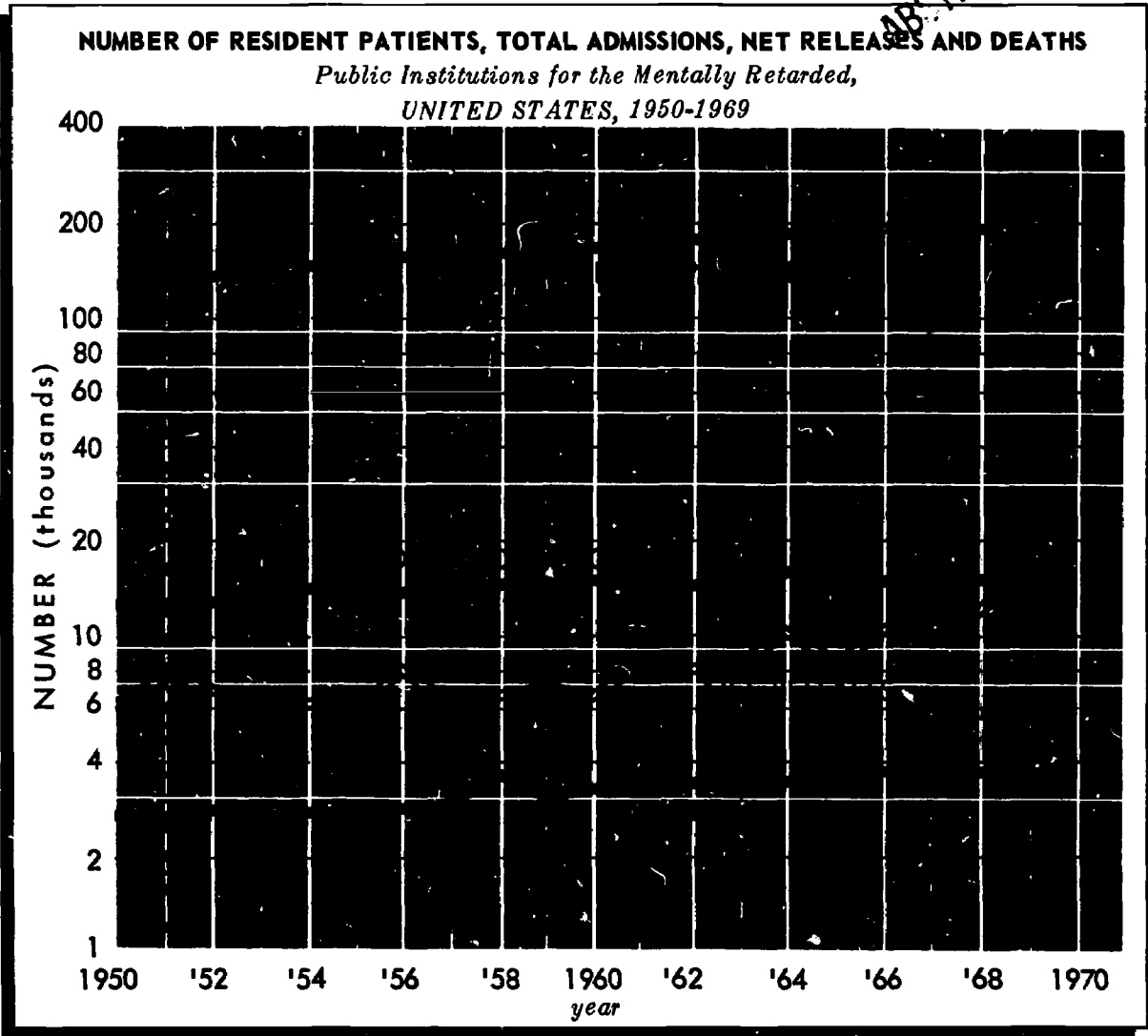
PROVISIONAL PATIENT MOVEMENT AND ADMINISTRATIVE DATA

July 1, 1968-June 30, 1969

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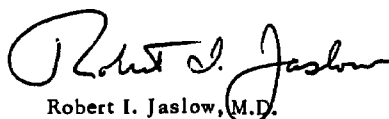
U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
SOCIAL AND REHABILITATION SERVICE
REHABILITATION SERVICES ADMINISTRATION
DIVISION OF MENTAL RETARDATION

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This report prepared by Mr. Richard Walker, represents the first of a series of yearly publications pertaining to the Institutions for the Mentally Retarded by the Division of Mental Retardation, Social and Rehabilitation Services.

We would greatly appreciate your comments and criticisms so that we will be able to provide the consumer with more meaningful and timely data in future publications.

The Division of Mental Retardation is deeply indebted to the State and institution statisticians and superintendents of these facilities who cooperated so generously in furnishing the information requested. We also wish to express our gratitude to Mr. Carl Taube and other members of the Biometry Branch for their assistance and advice during and after the transfer of this reporting program from the National Institute of Mental Health.



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I. INTRODUCTION

From 1946 to 1968 the National Institute of Mental Health was responsible for collecting and publishing data on the institutionalized mentally retarded in the United States. For the 1969 report period the responsibility for conducting the preliminary survey and the annual census of the Public Institutions of the Mentally Retarded was transferred to the Division of Mental Retardation in the Social and Rehabilitation Service. The data collected and published under the auspices of this program provide necessary information to answer requests from members of Congress, State legislators, project planners administrators and other persons interested in the field of mental retardation. These data are extremely useful, for example, in planning for facilities and services, research and training, and legislation and financing. In an effort to provide current data, the provisional survey statistics tabulated in these current Facility Reports are collected and published annually for certain patient movement and administrative categories by State for the Public Institutions for the Mentally Retarded (referred to as "Institutions" in this report).

As the data are provisional they are subject to some change. Data in greater detail on first admission and resident patients by age, sex, medical classification and measured intelligence will appear

in another Social and Rehabilitation Service publication.

Trends in certain patient movement categories for institutions are depicted graphically for the years 1950-1969 on the cover. These trends, as well as others, are indicated numerically for the years 1963 - 1969 in Table 1 and include estimates for under-reporting wherever possible. These totals which are the most complete available, supersede totals published in prior reports by the National Institute of Mental Health. Also shown in Table 1 are the same data expressed in index numbers with 1963 used as the base year. Thus, percent change since the base period can be read directly from Table 1, with increase being numbers greater than 100. For instance, the 1964 index number for admissions is 102.5. This means that admissions in that year were 2.5 percent greater than base period admissions. An index number shows the percent change between a specific year and the base period. It does not indicate percent change between a specific year and the base period. It does not indicate percent change between years other than the base year. Table 2 shows detailed patient movement and administrative data for each State. Definitions of terms used in this report are given in Section III.

TABLE 1
RECENT TRENDS OF PATIENT MOVEMENT AND ADMINISTRATIVE DATA, PUBLIC INSTITUTIONS FOR THE MENTALLY RETARDED
UNITED STATES, 1963 - 1969*

Item	1963	1964	1965	1966	1967	1968	1969
All Admissions	14,909	15,276	17,300	14,998	15,714	14,688	14,868
Net Releases	8,156	9,292	7,993	9,268	11,665	11,675	14,701
Deaths in Institutions	3,498	3,384	3,583	3,601	3,635	3,614	3,621
Resident Patients End of Year	176,516	179,599	187,273	191,987	193,188	192,520	189,394
Personnel (full time) at End of Year	69,494	74,128	79,056	88,974	94,900	100,804	107,737
Maintenance Expenditures Per Resident Patient	\$353,574.833	\$396,588.263	\$441,714.654	\$505,141.941	\$576,620.954	\$672,735.697	\$764,605.791
Per Year	1,984.00	2,188.77	2,334.99	2,615.30	2,965.33	3,471.99	3,995.58
Per Day	5.44	5.98	6.40	7.17	8.12	9.49	10.95
Per Patient under Treatment	1,879.43	2,062.61	2,221.36	2,447.27	2,774.10	3,244.98	3,681.02
Per Year	5.15	5.64	6.09	6.70	7.60	8.87	10.08

INDEX NUMBERS

All Admissions	100.0	102.5	116.0	100.6	105.4	98.5	99.7
Net Releases	100.0	113.9	98.0	113.6	143.0	143.1	180.2
Deaths in Institutions	100.0	96.7	102.4	102.9	103.9	103.3	103.5
Resident Patients End of Year	100.0	101.7	106.1	108.8	109.4	109.1	107.3
Personnel (full time) at End of Year	100.0	106.7	113.8	128.0	136.6	145.1	155.0
Maintenance Expenditures Per Resident Patient	100.0	112.2	124.9	142.3	163.1	190.3	216.2
Per Year	100.0	110.3	117.7	131.8	149.5	175.0	201.4
Per Day	100.0	109.9	117.6	131.8	149.3	174.4	201.3
Per Patient under Treatment	100.0	109.7	118.2	130.2	147.6	172.7	195.9
Per Year	100.0	109.5	118.3	130.1	147.6	172.2	195.7

*These data include estimates for underreporting wherever possible.

TABLE 2 (Continued)

PROVISIONAL PATIENT MOVEMENT AND ADMINISTRATIVE DATA: UNITED STATES, JULY 1, 1968 - JUNE 30, 1969

PUBLIC INSTITUTIONS FOR THE MENTALLY RETARDED

PATIENT MOVEMENT RATIOS

State	Rate Per 100,000 Civilian Population ^{16/}		Rate Per 1,000 Average Resident Patients ^{17/}			Net Releases Per 1,000 Total Admission
	Total Admissions	Resident Patients End of Year	Total Admissions	Net Releases Alive from Institutions	Deaths in Institutions	
United States ^{1/}						
Alabama.....	1.5	66.7	22.6	17.1	12.8	754.7
Alaska.....	6.4	40.6	163.3	91.8	20.4	562.5
Arizona.....	2.5	58.8	41.7	32.5	18.3	780.5
Arkansas.....	18.8	56.9	375.6	95.7	5.0	254.7
California.....	4.5	65.8	66.9	105.3	24.2	1,573.2
Colorado.....	8.8	111.3	76.6	137.1	13.1	1,790.1
Connecticut ^{3/}	21.7	137.2	158.1	148.4	14.1	938.5
Delaware.....	5.0	106.4	46.8	71.0	10.4	1,518.5
District of Columbia..	13.4	163.9	81.0	87.2	11.6	1,076.1
Florida ^{4/}	15.2	91.4	175.1	44.9	26.3	256.3
Georgia.....	5.1	37.5	136.6	129.5	7.7	948.3
Hawaii.....	7.3	100.8	69.9	125.6	20.7	1,796.3
Idaho.....	24.4	98.2	247.5	220.5	35.6	890.8
Illinois.....	4.5	77.7	55.2	122.9	25.7	2,226.7
Indiana.....	3.9	73.8	52.8	53.4	16.8	1,009.9
Iowa.....	5.0	55.6	86.7	151.1	21.0	1,742.9
Kansas.....	8.9	83.7	105.4	117.3	19.6	1,112.7
Kentucky.....	4.6	32.9	138.7	158.4	19.7	1,141.9
Louisiana.....	8.4	75.3	111.4	86.3	19.8	774.2
Maine ^{5/}	7.3	86.9	81.2	146.5	16.0	1,802.8
Maryland.....	8.5	88.1	96.9	62.9	21.3	649.7
Massachusetts.....	7.2	143.0	50.1	51.4	22.1	1,025.4
Michigan ^{6/}	7.7	140.4	54.1	63.0	17.3	1,164.9
Minnesota ^{7/}	7.3	131.0	53.9	112.5	15.5	2,088.6
Mississippi.....	4.8	57.1	83.4	87.2	13.4	1,044.6
Missouri ^{8/}	25.7	55.1	459.0	476.0	17.4	1,037.1
Montana.....	16.0	135.5	117.4	112.1	17.1	954.5
Nebraska.....	4.6	140.6	31.2	94.2	23.7	3,015.1
New Hampshire.....	4.5	140.8	32.0	7.0	15.0	218.7
New Jersey ^{9/}	3.4	94.1	35.9	24.4	15.1	679.2
New Mexico.....	6.8	78.1	87.0	63.2	13.2	727.3
New York ^{10/}	6.7	147.0	45.4	53.0	19.8	1,166.4
North Carolina.....	11.3	94.6	121.3	75.7	15.4	623.7
North Dakota.....	12.6	249.3	50.0	42.1	27.6	842.1
Ohio ^{11/}	5.5	87.7	62.4	62.0	20.8	993.2
Oklahoma.....	10.5	78.3	133.8	131.8	10.1	985.0
Oregon.....	11.0	145.1	79.0	63.4	16.9	838.6
Pennsylvania ^{12/}	3.1	92.0	33.0	79.6	20.6	2,413.5
Rhode Island.....	6.2	98.6	63.6	34.7	11.6	545.4
South Carolina.....	24.1	133.5	192.0	47.9	13.7	249.2
South Dakota.....	17.0	185.3	90.7	94.8	15.5	1,045.0
Tennessee.....	6.3	63.0	103.2	23.2	17.0	224.9
Texas ^{13/}	6.3	96.1	66.1	33.2	16.3	502.2
Utah.....	4.9	110.5	44.5	19.2	18.3	431.4
Vermont.....	17.6	150.4	116.1	105.6	22.6	909.1
Virginia.....	6.0	80.6	75.0	41.9	24.2	559.3
Washington.....	6.0	121.5	49.7	45.0	13.9	905.0
West Virginia.....	2.3	25.9	89.2	80.7	8.5	904.8
Wisconsin.....	8.5	89.5	96.0	63.6	17.0	662.0
Wyoming.....	10.1	219.9	46.1	20.2	17.3	437.5

Note: Refer to page 7 for footnotes

TABLE 2 (Continued)

PROVISIONAL PATIENT MOVEMENT AND ADMINISTRATIVE DATA: UNITED STATES, JULY 1, 1968 - JUNE 30, 1969

PUBLIC INSTITUTIONS FOR THE MENTALLY RETARDED

PERSONNEL AND FINANCIAL DATA

State	Average Daily Resident Patient Population	Patients under Treatment	Total Full-time Personnel End of Year	Maintenance Expenditures		
				Total Amount	Daily Expenditures	
					Per Resident Patient ^{14/}	Per Patient under Treatment ^{15/}
United States ^{1/}	191,363	207,716	107,737	\$764,605,791	\$10.95	\$10.08
Alabama.....	2,245	2,402	760	5,076,241	6.19	5.79
Alaska.....	98	112	104	1,288,108	36.01	31.51
Arizona.....	922	1,029	470	2,288,922	6.80	6.09
Arkansas.....	884	1,230	974	3,667,027	11.36	8.17
California ^{2/}	12,671	14,222	7,756*	68,666,047	14.85	13.23
Colorado.....	2,329	2,631	1,437	11,730,592	13.80	12.21
Connecticut.....	4,025	4,770	2,391	19,751,936	13.44	11.34
Delaware.....	579	614	402	2,364,965	11.19	10.55
District of Columbia.....	1,235	1,413	419	5,770,000	12.80	11.19
Florida ^{4/}	5,787	6,108	4,136	23,816,976	11.20	10.92
Georgia.....	1,681	1,932	1,091	8,072,086	13.16	11.45
Hawaii.....	764	856	382	2,882,133	10.33	9.22
Idaho.....	724*	880	348	2,603,857*	9.85	8.11
Illinois.....	8,881	9,863	5,503	41,683,147	12.36	11.58
Indiana.....	3,919	4,038	2,468	16,972,580	11.87	11.51
Iowa.....	1,714	1,824	1,467	8,909,263	14.24	13.38
Kansas.....	1,996	2,171	1,718	10,893,689	14.95	13.75
Kentucky.....	1,083	1,236	689	4,050,099*	10.24	8.98
Louisiana.....	2,873	3,084	2,054	12,368,333	11.79	10.99
Maine ^{5/}	844	981	569	3,579,482	11.62	10.00
Maryland.....	3,090	3,534	1,722	11,604,605	10.29	9.00
Massachusetts.....	7,971	8,345	3,438	28,840,684	9.91	9.47
Michigan ^{6/}	11,898	11,283	6,874	57,039,060	13.15	11.62
Minnesota ^{7/}	4,898	5,186	3,046	19,265,634	10.78	9.62
Mississippi.....	1,251	1,465	506	2,025,972	4.44	3.79
Missouri ^{8/}	2,624	3,814	1,939	12,204,241	9.75	9.13
Montana.....	849	1,053	524	2,735,263	8.83	7.12
Nebraska.....	2,074	2,271	825	4,922,232	6.50	5.94
New Hampshire.....	1,008	1,026	412	2,587,745	7.03	6.91
New Jersey ^{9/}	6,736	6,927	3,713	23,755,544	9.66	9.39
New Mexico.....	766	821	651	3,825,924	13.68	12.77
New York ^{10/}	27,158	28,870	14,521*	105,710,228*	10.74	10.15
North Carolina.....	4,751	5,233	2,789	16,709,642	9.64	8.75
North Dakota.....	1,516	1,612	767*	3,475,318	6.28	5.91
Ohio ^{11/}	9,702	10,192	3,712	26,261,876	7.58	7.21
Oklahoma.....	2,156	2,262	1,553	8,375,392	10.64	10.22
Oregon.....	3,029	3,180	1,316	10,558,470	9.55	9.10
Pennsylvania ^{12/}	11,736	11,961	6,923	51,364,348	11.42	11.19
Rhode Island.....	866	912	512	4,606,255	14.57	13.84
South Carolina.....	3,360	3,697	1,380	8,039,348	6.55	5.96
South Dakota.....	1,219	1,347	491	3,034,978	6.82	6.17
Tennessee.....	2,396	2,585	1,668	9,020,653	10.31	9.56
Texas ^{13/}	10,808	11,085	5,167	30,531,058	7.74	7.55
Utah.....	1,020*	1,193*	444	3,038,230	8.16	6.98
Vermont.....	661	744	299	2,089,242	8.66	7.69
Virginia.....	3,627	3,853	1,450*	8,932,097	6.75	6.35
Washington.....	4,163	4,242	2,214	19,728,492	12.98	12.74
West Virginia.....	486	513	410	1,978,430*	11.15	10.57
Wisconsin.....	3,688	4,091	3,000	24,115,619*	17.91	16.51
Wyoming.....	602	723	333	1,793,818	8.16	6.80

Note: Refer to page 7 for footnotes

TABLE 2 (Continued)

PROVISIONAL PATIENT MOVEMENT AND ADMINISTRATIVE DATA: UNITED STATES, JULY 1, 1968 - JUNE 30, 1969

PUBLIC INSTITUTIONS FOR THE MENTALLY RETARDED

PATIENT MOVEMENT DATA

State	Number of Institutions	Resident Patients Beginning of Year	Admissions (excluding transfers)			Net Releases Alive from Institutions	Deaths in Institutions	Resident Patients End of Year
			Total	First Admissions	Readmissions			
United States ^{1/}	180	192,848	14,868	12,226	2,642	14,701	3,621	189,394
Alabama.....	1	2,349	53	46	7	40	30	2,332
Alaska.....	1	96	16	16	0	9	2	101
Arizona.....	1	988	41	38	3	32	18	979
Arkansas.....	1	857	373	373	0	95	5	1,130
California.....	9	13,355	867	664	203	1,364	313	12,545
Colorado.....	3	2,450	181	162	19	324	31	2,276
Connecticut ^{3/}	5	4,120	650	278	372	610	58	4,102
Delaware.....	1	587	77	23	4	41	6	567
District of Columbia..	1	1,308	105	45	60	113	15	1,285
Florida ^{4/}	7	5,156	952	938	14	244	143	5,721
Georgia.....	1	1,700	232	162	70	220	13	1,699
Hawaii.....	1	802	54	53	1	97	16	743
Idaho.....	1	706	174	111	63	155	25	700
Illinois.....	6	9,369	494	316	178	1,100	230	8,533
Indiana.....	3	3,837	201	157*	44*	203	64	3,771
Iowa.....	2	1,684	140	106	34	244	34	1,546
Kansas.....	3	1,967	204	152	52	227	38	1,906
Kentucky.....	2	1,088	148	91	57	169	21	1,046
Louisiana.....	5	2,774	310	245	65	240	55	2,789
Maine ^{5/}	1	910	71	64	7	128	14	839
Maryland.....	2	3,220	314	254	60	204	69	3,261
Massachusetts.....	8	7,951	394	346	48	404	174	7,767
Michigan ^{6/}	10	12,610	673	652*	21*	784	215	12,234
Minnesota.....	7	5,215	271	215	56	566	78	4,842
Mississippi.....	1	1,353	112	104	8	117	18	1,330
Missouri ^{8/}	10	2,628	1,186	843	343	1,230	45	2,539
Montana.....	2	943	110	109	1	105	16	932
Nebraska.....	1	2,205	66	66	0	199	50	2,022
New Hampshire.....	1	994	32	32	-	7	15	1,004
New Jersey ^{9/}	7	6,687	240	215	25	163	101	6,663
New Mexico.....	1	755	66	64	2	48	10	763
New York ^{10/}	17	27,632	1,238	1,014*	224*	1,444	540	26,886
North Carolina.....	4	4,659	574	505	69	358	73	4,802
North Dakota.....	2	1,536	76	48	28	64	42	1,506
Ohio ^{11/}	6	9,599	593	521	72	589	198	9,405
Oklahoma.....	3	1,996	266	249	17	262	20	1,980
Oregon.....	3	2,957	223	180	43	187	50	2,943
Pennsylvania ^{12/}	9	11,591	370	285	85	893	231	10,837
Rhode Island.....	1	857	55	34	21	30	10	872
South Carolina.....	3	3,067	630	624*	6*	157	45	3,495
South Dakota.....	2	1,236	111	65	46	116	19	1,212
Tennessee.....	3	2,336	249	217	32	56	41	2,488
Texas ^{13/}	8	10,392	693	593	100	348	171	10,566
Utah.....	1	1,142*	51*	50*	1*	22	21	1,150
Vermont.....	1	667	77	72	5	70	15	659
Virginia.....	2	3,583	270	248	22	151	87	3,615
Washington.....	5	4,042	200	192	8	181	56	4,005
West Virginia.....	1	471	42*	40	2*	38	4	471
Wisconsin.....	3	3,730	361	318	43	239	64	3,788
Wyoming.....	1	691	32	31	1	14	12	697

Refer to page 7 for footnotes

FOOTNOTES

- 1/ The United States total do not include Nevada since Nevada has no public institutions for the mentally retarded.
 - 2/ California: Personnel data for Dewitt State Hospital and Patton State are estimates.
 - 3/ Connecticut: Mortality data includes deaths among those on long term leave.
 - 4/ Florida: One new center was opened during the fiscal year and was as of June 30, 1969 being phased out. Therefore, in computing daily expenditure ratios for Florida 236 average daily resident patients, \$1,094,006 in maintenance expenditures and 406 patients under care were excluded for the facility.
 - 5/ Maine: Pineland Hospital and Training Center is a dual purpose facility. Only data pertaining to the mentally retarded are reported here.
 - 6/ Michigan: One new institution opened this year. In computing daily maintenance expenditures for Michigan 162 average daily patients, and 715,804 maintenance expenditures in this institution was excluded. Also the data on personnel include part time employees.
 - 7/ Minnesota: Data for maintenance expenditures and maintenance personnel were excluded for the Minnesota Valley Social Rehabilitation Center. These could not be separated from personnel and expenses of St. Peter State Hospital.
 - 8/ Missouri: Two new 40 bed Regional Diagnostic Centers, that provide inpatient services, were opened this year. This increases the number of such facilities to eight within the State system. Since the data pertaining to the two new facilities could not be separated from that of the six older centers, the computation of daily maintenance expenditures did not include the data for all eight but just that for the two long term stay residential institutions. Thus, the maintenance expenditure ratios excludes 198 average daily patients, 1,222 patients under treatment and \$3,568,507 in maintenance expenditures.
 - 9/ New Jersey: One new institution opened this year. Since data for this facility could not be identified and therefore excluded from the daily maintenance expenditure computations, these ratios reflect a slightly lower value than if the data had been excluded.
 - 10/ New York: Data reported was for the fiscal year ending March 31, 1968. Data on personnel, maintenance expenditures excludes Albion and Beacon State Training Schools. Therefore, the maintenance expenditures ratios for New York excludes 194 average daily patients and 344 patients under treatment for these facilities.
 - 11/ Ohio: Includes data for the mentally retarded patients at the following dual purpose institutions: Cambridge State Hospital and Springview Hospital. However, personnel and maintenance expenditure for these two facilities were not included. Therefore, the maintenance expenditure ratios for Ohio exclude 218 patients under treatment and 216 average daily resident patients.
 - 12/ Pennsylvania: Western State School and Hospital is a dual purpose facility. Only data pertaining to the mentally retarded patients are reported here with the exception of the data for personnel and maintenance which cover the cost of both the mentally ill and mentally retarded patients, and therefore, are overestimates. However, in computing daily maintenance expenditures for Pennsylvania 512 average daily patients, 507 patients under treatment and \$4,558,279 maintenance expenditures in this institution were excluded.
 - 13/ Texas: Includes data from Lubbock State School which opened in June 1969. Since data for this facility could not be separated and therefore excluded from the daily maintenance expenditure computations, these ratios reflect a slightly lower value than if the data had been excluded.
 - 14/ Per resident patient maintenance expenditures are based on the average daily resident patient population of institutions reporting expenditures.
 - 15/ Per patient under treatment maintenance expenditures are based on the patients under treatment (resident patients beginning of year plus total admissions) for institutions reporting expenditures.
 - 16/ Admission and resident patient end of year rates are per 100,000 estimated civilian population. Sources: U.S. Bureau of the Census, Current Population Reports, Series P - 25 No. 436, provisional estimate for July 1, 1969. (Civilian population for the State of Nevada has been subtracted from the U.S. civilian population since Nevada has no public institutions for the mentally retarded)
 - 17/ These rates are based on the average of the beginning and end of year resident patient populations.
- Symbols used: *Indicates data which are estimate or include estimates.
- Data not available.

II. HIGHLIGHTS

For the second consecutive year the number of resident patients in the Public Institutions for the Mentally Retarded decreased. This decrease of approximately 3200 residents was substantially greater than that evidenced in 1968 and lowers the number to pre-1966 levels. As in the previous year this decrease was associated with an increase in the number of resident facilities; from 170 to 180. At the end of FY 1969 there were 189,394 resident patients in these institutions.

The annual number of total admissions over the years has fluctuated between 13 and 17 thousand. In 1969, there were 14,868 total admissions, an increase of about 1 percent over 1968 figure. This resulted in a rate of 7.5 per 100,000 population which indicates no change from the 1968 rate.

The number of net releases showed marked increase in 1969 as compared to a generally moderate year by year increase since 1960 with the exception of 1965, a year in which there was a large increase in total admissions. In 1969, there were 14,701 net releases an increase of about 26 percent over the 1968 figure. The rate per 1,000 average resident patients was 76.9 as opposed to 60.5 in 1968.

The annual number of deaths in institutions has remained fairly constant since 1958, as has the death rate per 1,000 average resident patients. This rate has been about 19 for each of the last ten years, except for 1958, when the rate rose to 23 per 1,000 average resident patients.

There are now almost 108,000 full-time personnel caring for the mentally retarded in these institutions. The ratio of resident patients to personnel has consistently reflected more personnel per patient over the years, and in 1969, as in the previous two years there were less than two resident patients for each full-time employee. In 1960, this ratio was three to one.

The maintenance expenditures for the care of patients have also greatly increased the figure of approximately \$765,000,000 in 1969 is almost three times the amount spent in 1960. Converting these data into ratios, \$10.08 was spent each day per patient under treatment in 1969, as compared with \$4.25 in 1960, a 137 percent increase over this period.

III. DESCRIPTION AND LIMITATIONS OF THE DATA

A. Patient Movement Data

The summary data presented in this report may be used to analyze the annual changes in year end populations of the Public Institutions in terms of three categories of patient movement (*admissions, net releases, and deaths*). These categories are defined as follows:

1. **Admissions:** This category includes first and readmissions. First Admissions are all patients admitted to a public institution for the mentally retarded without a record of previous care, i.e., a record of an admission and a formal discharge, in either a public or private institution anywhere. Thus, a patient coming into a public Institution for the mentally retarded from a hospital for mental disease would be considered a first admission. Readmissions are all patients admitted with a record of previous care in a public or private Institution.

2. **Net Releases Alive from Institution:** The concept of "net release alive from Institution" takes into account movement of patients into and out of the Institution since this quantity is the number of placements on extramural care plus direct discharge from the Institution less the number of returns from extramural care, all occurring during any one year. National data on placements and returns from extramural care are not available but net releases may be computed from less detailed movement data as:

$$\text{Net Releases Alive from Institution} = \left[\begin{array}{c} \text{Resident} \\ \text{Patients} \\ \text{Beginning} \\ \text{of Year} \end{array} + \left[\begin{array}{c} \text{All Admis-} \\ \text{sions} \\ \text{Excluding} \\ \text{Transfers} \end{array} - \left[\begin{array}{c} \text{Deaths} \\ \text{in} \\ \text{Insti-} \\ \text{tution} \end{array} - \left[\begin{array}{c} \text{Resident} \\ \text{Patients} \\ \text{End of} \\ \text{Year} \end{array} \right] \right] \right]$$

Interpretation of net releases alive from Institution should be made with caution. This quantity is the net number of releases alive from the Public Institutions in the State system and includes not only direct discharges to the community and placement on leave but also direct discharges to other in-patient facilities outside the State system such as public mental hospitals, boarding care homes, and public Institutions in other States. The number of net releases is used as a measure of movement out of the Institution rather than the total number of discharges because many discharges occur while patients are already outside the Institution on extramural care. The number of net releases may be considered an estimate of the number of effective releases from the Institution under the assumption that subtracting returns from leave during the year removes only the short term visits, leaves, and escapes and retains the effective releases; i.e., those from which the patients did not return to the Institution within the time period covered.

3. **Deaths in Institution:** This category includes only deaths occurring to patients resident in the Institution and does not include deaths among patients on leave, even though these patients are still on the Institution books.

4. **Patient Movement Ratios per 100,000 Civilian Population:** The admission ratio measures the proportion of people coming under care during the year while the resident patient at end of year ratio measures the proportion of the population under care at one point in time.

5. **Patient Movement Ratios per 1,000 Average Resident Patients:** These ratios relate each of three movement categories: Total admissions, Net Releases, and Deaths, to the average resident population, thus providing indexes of the amount and type of patient movement activity that occurred during the year. It should be kept in mind that the ratios shown in this publication are based on totals and as such they have the limitations of totals. They are not standardized for such important variables as age, sex, medical classification, and years in the Institution. To illustrate how these ratios are descriptive of changes in resident patient populations, consider the following hypothetical examples:

Suppose that the resident patient populations in State A and State B each increased by three percent (or 30 per 1,000). Considering only these data gives a limited and potentially misleading view of patient movement activity. However, now suppose that the patient movement ratios are computed to be the following:

<u>Movement Category</u>	<u>State A</u>	<u>State B</u>
Admissions	99.3	162.7
Net Releases	79.9	144.0
Deaths	16.3	15.7

These ratios show that State B has much higher rates of patient movement into and out of the Institution than State A. While these ratios highlight areas of difference between the two States, conclusions based only on these ratios may be fallacious. The differences can be isolated further by analyzing the data in terms of the patient characteristics mentioned above (age, sex, medical classification and years in the institution). Even at this point, one cannot evaluate the relative efficacy of the two public institutional programs since differences in patient movement ratios between States may also be attributable to a great many other factors, such as policies and laws controlling admissions and release, the ways in

which the public institutions are utilized by the communities they serve, the types of patients admitted, the various treatment programs within the institutions, and the availability of various community facilities that can serve as adjuncts or alternatives to institutionalization. Since the reasons for interstate differences in these movement ratios are complex and vary considerably from institution to institution within and between States, ratios constructed from gross movement data (i.e., *State totals*) cannot be used to measure the therapeutic effectiveness of various programs.

6. **Ratio of Net Releases to 1,000 Admissions:** The ratio "net releases per 1,000 admissions" is a convenient index for summarizing the live net movement into and out of the institution. For example, if the ratio is less than 1,000 there were more admissions than net releases. Note that this index does not relate net releases to admissions in the sense of a percent or rate because not all releases during a year derive from the admissions during that year. Some of these net releases occurred to patients with lengths of stay greater than one year, that is, patients admitted during some prior year.

B. Expenditure Ratios:

The expenditure per average daily resident patient has been the most commonly used ratio for comparing institution expenditures. Its major limitation is that it does not adequately take into account the number of admissions for which a large share of the expenditure is required. If the patient base is enlarged to include admissions during the year, the resulting sum is the best available estimate of patients under treatment during the year. This quantity is actually defined as:

$$\text{Patients Under Treatment} = \left| \begin{array}{l} \text{Resident} \\ \text{Patients} \\ \text{Beginning} \\ \text{of Year} \end{array} \right| + \left| \begin{array}{l} \text{All Admis-} \\ \text{sions} \\ \text{Excluding} \\ \text{Transfers} \end{array} \right| + \left| \begin{array}{l} \text{Returns from Leave} \\ \text{among Patients on} \\ \text{Leave Beginning of} \\ \text{Year} \end{array} \right|$$

The estimate, however, does not include the last term since these data are not available nationally.

The ratio of expenditures to patients under treatment appears to be a more realistic measure, but it does not solve the problem completely. While a larger share of the expenditures is required for the care of admissions, the index weights both admissions and resident patients equally.

C. Interstate Variation:

Considerable variation among the States in patient movement, personnel, and expenditure data is indicated in Table 2.

Actual numbers are not comparable among States since they do not take into account differences in size of population. Therefore, ratios have been computed for several data categories. For example, net releases and total admissions per 1,000 average resident patients show considerable variation, with net release rates ranging from 7 to 476. Rates of admission and resident patients at end of year per 100,000 civilian population also vary considerably from State to State. Considerable interstate variation is further illustrated by the range in expenditures per patient under treatment per day from a high of \$16.15 (excluding Alaska) to a low of \$3.79.

However, as has been emphasized in Sections A4-A6, comparison of State ratios, while serving to highlight areas of differences, are limited. More detailed classifications of movement categories by such variables as age, sex, medical classification and time on books are needed. Data on most of these variables as well as more detail on personnel and maintenance expenditures will be available in other SRS publications. This detail will provide partial explanations of the gross differences noted in the above tables. Also, as mentioned previously, other factors such as policies and laws affecting admission and releases of patients, other community treatment facilities, effectiveness of therapeutic programs, etc., must be evaluated to determine the extent of their influence on interstate variation.